

REMARKS

The Examiner is thanked for the thorough examination of the present application.

The Office Action, however, has continued to reject all claims 1-21 and 23-30.

The final Official Action cited the following references:

- U.S. Patent 6,567,928 by Lyle et. al., entitled *METHOD AND APPARATUS FOR EFFICIENTLY RECOVERING FROM A FAILURE IN A DATABASE THAT INCLUDES UNLOGGED OBJECTS*, (referred to as "Lyle" hereinafter);
- U.S. Patent 5,619,692 by Lyle et. al., entitled *SEMANTIC OPTIMIZATION OF QUERY ORDER REQUIREMENTS USING ORDER DETECTION BY NORMALIZATION IN A QUERY COMPILER SYSTEM*, (referred to as "Malkenmus" hereinafter);
- U.S. Patent 6,978,262 B2 by Tsai, entitled *DISTRIBUTED DATABASE SCHEMA*, (referred to as "Tsai" hereinafter).

Original claims 1-3, 5, 7, 9-13, 15, 17, 19-21, 23-24, 26, 28, and 30 stand rejected under 35 U.S.C. 102(e) as allegedly anticipated by Lyle. Original claims 4, 6, 14, 16, 25, and 27 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Lyle in view of Malkenmus. Original claims 8, 18, and 19 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Lyle in view of Tsai.

In response, claims 1, 11, and 21 have been amended to overcome the rejections under 35 U.S.C. 102(e) and 103(a), and further, claims 4, 14, and 25 have been canceled. Simply stated, the amendments to independent claims 1, 11, and 21 render the outstanding rejections moot, and all claims (as amended herein) patently define over the cited art. The additional limitations in the amended claims 1, 11, and 21 are supported by the original application, including at least first paragraph of page 5 in the detailed description. Accordingly, no new matter has been added to the application by this amendment.

Claims 1-3, 5-13, 15-21, 23-24, and 26-30 are currently pending in the present application. Applicant respectfully requests reconsideration of these claims. In this regard, Applicant submits that claims 1-3, 5-13, 15-21, 23-24, and 26-30 are clearly in condition for allowance, for at least the reasons discussed herein below. The accompanying remarks are deemed necessary in light of the position taken in the FINAL Official Action. The remarks of the instant response further clarify and distinguish Applicant's claimed embodiments over the grounds of rejection and supporting reasoning presented in the FINAL Official Action.

Instant Claims 1-3, 5-13, 15-21, 23-24 and 26-30

Regarding amended claims 1, 11, and 21, Lyle, Malkenmus and Tsai fail to teach the claimed *one “data correlation of a first of the data records and a second of the data records being sequential indicates that the second data record is dependent from the first data record.”*

In this regard, claims 1, 11, and 21 (as amended) respectively recite:

1. A system of data management for a plurality of correlated data records, comprising:

 a data verification module, verifying the data records according to the data correlations and producing a plurality of verification results, each of the verification results corresponds to one of the data records;

 a data notation module, coupled to the data verification module, noting the verification results in the corresponding data records; and

 a data management module, coupled to the data notation module, managing the data records according to the verification results,

 wherein each of the verification results includes one of valid and invalid, each of the verification result includes valid for the corresponding data record when the corresponding data record can be applied to a data application module, ***each of the verification result includes invalid for the corresponding data record when the corresponding data record can not be applied to the data application module, and one data***

correlation of a first of the data records and a second of the data records being sequential indicates that the second data record is dependent from the first data record.

11. A method of data management for a plurality of correlated data records, comprising:

verifying the data records according to the data correlations and producing a plurality of verification results, each of the verification results corresponds to one of the data records;

noting the verification results in the corresponding data records; and

managing the data records according to the verification results, wherein each of the verification results includes one of valid and invalid, each of the verification result includes valid for the corresponding data record when the corresponding data record can be applied to a data application module, **each of the verification result includes invalid for the corresponding data record when the corresponding data record can not be applied to the data application module, and one data correlation of a first of the data records and a second of the data records being sequential indicates that the second data record is dependent from the first data record.**

21. A database, comprising:

a data storage module, storing a plurality of correlated data records, and

a data operation module, coupled to the data storage module, operating the data records, and further comprising:

a data verification module, verifying the data records according to the data correlations and producing a plurality of verification results, each of the verification results corresponds to one of the data records;

a data notation module, coupled to the data verification module, noting the verification results in the corresponding data records; and

a data management module, coupled to the data notation module, managing the data records according to the verification results,

wherein each of the verification results includes one of valid and invalid, each of the verification result includes valid for the corresponding data record when the corresponding data record can be applied to a data application module, **each of the verification result includes invalid for the corresponding data record when the corresponding data record can not be applied to the data application module, and one data correlation of a first of the data records and a second of the data records being sequential indicates that the second data record is dependent from the first data record.**

(*Emphasis added.*) Independent claims 1, 11, and 21 patentably define over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

Applicants understand Malkenmus to disclose that a “functional dependency” herein denotes a relationship between two *attributes* where “A functionally determines B” when every *record* in a relation that has a particular value for attribute A has an unchanging value for attribute B (*emphasis added*). Applicants also understand that the disclosed “functional dependency” is a relationship for two attributes comprised in all data records. Consequently, the disclosed functional dependency *is not* the claimed data correlation of a first of the data records and a second of the data records being sequential.

For at least the reasons stated above, Lyle, Malkenmus and Tsai fail to teach or suggest all the limitations of instant independent claim 1, 11, or 21 of the present application. Therefore, claims 1, 11, and 21 are allowable over the cited references. Insofar as all remaining claims depend from either claim 1, 11, or 21, these claims are also in condition for allowance.

In view of the foregoing remarks, Applicants respectfully request the Examiner’s reconsideration of the application and the timely allowance of instant claims 1-3, 5-13, 15-21, 23-24 and 26-30.

Conclusion

For the reasons as described above, all claims are in condition for allowance, and withdrawal of the rejections and allowance of the claims, as now amended, are respectfully requested. Applicant has made every effort to place the present application in condition for allowance. It is therefore earnestly requested that the present application, as a whole, receive favorable consideration and that all of the claims be allowed in their present form.

Should Examiner feel that further discussion of the application and the Amendment is conducive to prosecution and allowance thereof, please do not hesitate to contact the undersigned at the address and telephone listed below.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

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